NAME _____ CLASS _____ DATE _____

Practice Masters Level A

2.2 Properties of Exponents

Evaluate each expression.

1. 5^{-2} _____
2. $(4 \cdot 3)^2$ _____
3. 14^0 _____
4. $\left(\frac{1}{3}\right)^{-2}$ _____
5. $\left(\frac{3}{4}\right)^3$ _____
6. $\left(\frac{1}{4}\right)^{-4}$ _____
7. $27^{\frac{1}{3}}$ _____
8. $64^{\frac{2}{3}}$ _____
9. $25^{\frac{5}{2}}$ _____
10. $81^{\frac{1}{2}}$ _____
11. $100^{\frac{-1}{2}}$ _____
12. $32^{\frac{-1}{5}}$ _____
13. $-2(2 \cdot 5^2)^2$ _____
14. $(3^2 \cdot 2^4)^0$ _____

Simplify each expression, assuming that no variable equals zero. Write your answer with positive exponents.

15. $m^5 m^{-4}$ _____
16. $(x^3)^5$ _____
17. $x^6 x^{-10}$ _____
18. $(x^{-2})^3$ _____
19. $(r^{-3})^{-1}$ _____
20. $p^1 p^{-5}$ _____
21. $\frac{w^{15}}{w^3}$ _____
22. $\frac{w^{-4}}{w^{-2}}$ _____
23. $\left(\frac{2w^2}{w^{-6}}\right)$ _____
24. $\left(\frac{4x^{-2}}{x^3}\right)^{-3}$ _____
25. $(xy^2)(xy^4)$ _____
26. $(-t^3)(-t^4)(-t^2)$ _____
27. $(4xy)^2(-x^2y)^5$ _____
28. $(-2a^2b^3)^2(-3a^3b^4)^3$ _____
29. $\frac{x^{-10}}{2x^{-5}}$ _____
30. $(-y^3)\left(-\frac{y^6}{y^{-2}}\right)$ _____